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The Performance of The Futures Hedge Against Energy Commodities Over Various Horizons

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Abstract

Hedging is an investment strategy which protects investor from market risk and potential losses. Several methods exist that allow market participants to hedge their position against price risk. In this paper we examine the performance of futures contracts in hedging energy commodity price over various holding periods. The empirical study is carried out in the expected utility framework which enables us to link the choice of the optimal hedge strategy with the risk aversion of a decision maker and explain rationale of hedging decisions. We propose a new approach to optimal hedging decisions by combining DCC forecasts and realized volatility. Simulations based on DCC model allow us to estimate optimal hedge ratio under various investment horizons. Realised volatility is used to verify the hedging performance in out-ofsample study. We compared our approach to those used in literature based on weekly or monthly returns and found better effectiveness of proposed hedge method. We also compared out-ofsample hedging performance to the Ederington ratio (1979) and found different results to that standard financial formula.

Keywords: gas, hedging effectiveness; oil, price risk, utility